

What Works Clearinghouse



Children Classified as Having an Emotional Disturbance

October 2011

Check & Connect

No studies of *Check & Connect* that fall within the scope of the Children Classified as Having an Emotional Disturbance review protocol meet What Works Clearinghouse (WWC) evidence standards. The lack of studies meeting WWC evidence standards means that, at this time, the WWC is unable to draw any conclusions based on research about the effectiveness or ineffectiveness of *Check & Connect* on children classified as having an emotional disturbance or students at risk for classification. Additional research is needed to determine the effectiveness or ineffectiveness of this intervention.

Program Description¹

Check & Connect is designed to promote students' engagement with school and learning. Students may be referred to the program if they exhibit academic, emotional, or behavioral warning signs. *Check & Connect* is implemented by a monitor, who is a combination of a student mentor, an advocate, and a service coordinator. The monitor's primary goal is to keep education a salient issue for disengaged students and their teachers and family. Student levels of engagement (such as attendance, grades, and suspensions) are "checked" regularly and used to guide the monitors' efforts to increase and maintain the students' "connection" with school.

Research²

The WWC identified 25 studies of *Check & Connect* for children classified as having an emotional disturbance that were published or released between 1989 and 2011.

Three studies are within the scope of the Children Classified as Having an Emotional Disturbance review protocol but do not meet evidence standards.

- Two studies did not establish that the comparison group was comparable to the treatment group prior to the start of the intervention. One of these used a quasi-experimental design, and the other was a randomized controlled trial with high attrition.
- One study had only one unit assigned to the treatment condition and one unit assigned to the control condition, which makes it impossible to attribute the observed effect solely to *Check & Connect*.

Twenty-two studies are outside the scope of the Children Classified as Having an Emotional Disturbance review protocol.

- Fifteen studies are literature reviews or meta-analyses.
- Six studies did not use an eligible study design (comparison group or single-case).
- One study did not confirm that at least 50% of students in the study sample were at-risk for emotional disturbance or classified as emotionally disturbed, as required for review under this protocol.

References

Do not meet WWC evidence standards

Bartolotta, R. J. (2011). A case study description of the impact of Check & Connect with students returning from alternative educational placements. *Dissertation Abstracts International Section 71(8-A)*, 2843. The study does not meet WWC evidence standards because it uses a quasi-experimental design in which the analytic intervention and comparison groups are not shown to be equivalent.

Sinclair, M. F. (2001). *Persistence plus: Using Check & Connect procedures to improve service delivery and positive post-school outcomes for secondary students with serious emotional disturbance: Final report*. Minneapolis: University of Minnesota, Institute on Community Integration. The study does not meet WWC evidence standards because it is a randomized controlled trial in which the combination of overall and differential attrition rates exceeds WWC standards for this area, and the subsequent analytic intervention and comparison groups are not shown to be equivalent.

Additional source:

Sinclair, M. F., Christenson, S. L., & Thurlow, M. L. (2005). Promoting school completion of urban secondary youth with emotional or behavioral disabilities. *Exceptional Children*, 71(4), 465–482.

Thorton, H. (1995). *Staying in school: A technical report of three dropout prevention projects for middle school students with learning and emotional disabilities* (Technical Report 1990–1995. ABC Dropout Prevention and Intervention series). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, Educational Resources Information Center. The study does not meet WWC evidence standards because the measures of effectiveness cannot be attributed solely to the intervention—there was only one unit assigned to one or both conditions for the relevant sample.

Additional source:

Thurlow, M. (1995). *Staying in school: A technical report of three dropout prevention projects for middle school students with learning and emotional disabilities* (Technical Report 1990–1995. ABC Dropout Prevention and Intervention series). Minneapolis: University of Minnesota, Institute on Community Integration.

Ineligible for review by Children Classified as Having an Emotional Disturbance

Anderson, A. R., Christenson, S. L., Sinclair, M. F., & Lehr, C. A. (2004). Check & Connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology*, 42(2), 95–113. The study is ineligible for review because it does not use a comparison group design or a single-case design.

Christenson, S. L., & Carroll, E. B. (1999). Strengthening the family–school partnership through “Check and Connect.” In E. Frydenberg (Ed.), *Learning to cope: Developing as a person in complex societies* (pp. 248–273). London: Oxford University Press. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Christenson, S. L., & Havy, L. H. (2004). Family–school–peer relationships: Significance for social, emotional, and academic learning. In J. E. Zins, R. P. Weissberg, M. C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 59–75). New York: Teachers College Press. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Christenson, S. L., & Reschly, A. L. (2010). Check & Connect: Enhancing school completion through student engagement. In B. Doll, W. Pfohl, & J. Yoon (Eds.), *Handbook of youth prevention science* (pp. 327–348). New York: Routledge. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

- Christenson, S. L., Sinclair, M., Evelo, D., & Thurlow, M. (1995). *Tip the balance: Policies & practices that influence school engagement for youth at high risk for dropping out of school*. Minneapolis: University of Minnesota, Institute on Community Integration. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Conboy, T. T. (2002). *An examination of Dakota County's Check and Connect program as compared to best practices*. Unpublished educational specialist's thesis, Minnesota State University, Mankato. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Edgar, E., & Johnson, E. (1995). *Relationship building & affiliation activities in school-based dropout prevention programs: Rationale & recommendations for action* (ABC Dropout Prevention and Intervention series). Minneapolis: University of Minnesota, Institute on Community Integration. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Evelo, D., Sinclair, M., Hurley, C., Christenson, S., & Thurlow, M. (1996). *Keeping kids in school: Using Check & Connect for dropout prevention*. Minneapolis: University of Minnesota, Institute on Community Integration. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). *Dropout risk factors and exemplary programs*. Clemson, SC: National Dropout Prevention Center, Communities In Schools, Inc. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Havsy, L. H. (2004). Effects of school climate, student belonging, student coping and home support for learning on student attendance. *Dissertation Abstracts International*, 64(12-A), 4356. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Hoppe, S. E. (2004). Improving transition behavior in students with disabilities using a multimedia personal development program: Check and Connect. *TechTrends: Linking Research & Practice to Improve Learning*, 48(6), 43–46. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Johnson, D. R. (2004). *Current challenges facing the future of secondary education and transition services for youth with disabilities in the United States*. Minneapolis: University of Minnesota, Institute on Community Integration. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Johnson, D. R. (2004). *Essential tools: Increasing rates of school completion: Moving from policy and research to practice. Part III: What works in dropout prevention? Summary chart of sample dropout prevention programs*. Retrieved from <http://www.ncset.org/publications/essentialtools/dropout/part3.1.asp>. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Lehr, C. A., Johnson, D. R., Bremer, C. D., Cosio, A., & Thompson, M. (2004). *Essential tools: Increasing rates of school completion: Moving from policy and research to practice*. Minneapolis: University of Minnesota, Institute on Community Integration, National Center on Secondary Education and Transition. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Lehr, C. A., Sinclair, M. F., & Christenson, S. L. (2004). Addressing student engagement and truancy prevention during the elementary school years: A replication study of the Check & Connect model. *Journal of Education for Students Placed at Risk*, 9(3), 279–301. The study is ineligible for review because it does not use a comparison group design or a single-case design.

Additional sources:

- Sinclair, M. F., & Lehr, C. A. (2000). *Dakota County: Elementary Check & Connect programs. Annual summative program evaluation report*. Minneapolis: University of Minnesota, Institute of Community Integration.

- Sinclair, M. F., & Lehr, C. A. (2001). *Dakota county: Elementary Check & Connect programs. Program evaluation 2001 summary report*. Minneapolis: University of Minnesota, Institute on Community Integration.
- Reschly, A. L. (2010). Reading and school completion: Critical connections and Matthew effects. *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 26(1), 67–90. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Sinclair, M. F. (2001). *Strengthening the safety net: Check & Connect*. St. Paul: University of Minnesota, Center for Effective Collaboration and Practice. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Sinclair, M. F., & Christenson, S. L. (1998). Dropout prevention for youth with disabilities: Efficacy of a sustained school engagement procedure. *Exceptional Children*, 65(1), 7–21. The study is ineligible for review because it does not use a sample aligned with the protocol—the authors could not confirm that at least 50% of students were at-risk for emotional disturbance or classified as emotionally disturbed.

Additional source:

- Christenson, S. L., Sinclair, M. F., Thurlow, M. L., & Evelo, D. (1999). Promoting student engagement with school using the Check and Connect model. *Australian Journal of Guidance and Counseling*, 9(1), 169–184.
- Sinclair, M. F., Christenson, S. L., Lehr, C. A., & Anderson, A. R. (2003). Facilitating student engagement: Lessons learned from Check & Connect longitudinal studies. *California School Psychologist*, 8, 29–41. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Sinclair, M. F., Hurley, C. M., Evelo, D. L., Christenson, S. L., & Thurlow, M. L. (2002). Making connections that keep students coming to school. In B. Algozzine & P. Kay (Eds.), *Preventing problem behaviors: A handbook of successful prevention strategies* (pp. 162–182). Thousand Oaks, CA: Corwin Press. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Sinclair, M. F., & Kaibel, C. (2002). *Dakota County: Secondary Check & Connect program: Program evaluation final summary report*. Minneapolis: University of Minnesota, Institute on Community Integration. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Thurlow, M. L., Sinclair, M. F., & Johnson, D. R. (2002). *Students with disabilities who drop out of school: Implications for policy and practice. Issue brief: Examining current challenges in secondary education and transition*. Minneapolis: University of Minnesota, Institute on Community Integration. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Glossary of terms and criteria for study rating, effectiveness rating, and extent of evidence

Attrition	Attrition occurs when an outcome variable is not available for all participants initially assigned to the intervention and comparison groups. The WWC considers the total attrition rate and the difference in attrition rates across groups within a study.
Clustering adjustment	If treatment assignment is made at a cluster level and the analysis is conducted at the student level, the WWC will adjust the statistical significance to account for this mismatch, if necessary.
Design	The design of a study is the method by which intervention and comparison groups were assigned.
Domain	A domain is a group of closely related outcomes.
Effect size	The effect size is a standardized measure of the magnitude of an effect that is comparable across studies and outcomes.
Eligibility	A study is eligible for review if it falls within the scope of the review protocol and uses a causal design (RCT or QED).
Equivalence	A demonstration that the analysis sample groups are similar on observed characteristics defined in the review area protocol.
Extent of evidence	An indication of how much evidence supports the findings. The criteria for the extent of evidence levels are in the WWC Procedures and Standards Handbook (version 2.1).
Improvement index	Along a percentile distribution of students, the improvement index represents the gain or loss of the average student due to the intervention. As the average student starts at the 50th percentile, the measure ranges from -50 to +50.
Multiple comparison adjustment	When a study includes multiple outcomes or comparison groups, the WWC will adjust the statistical significance to account for the multiple comparisons, if necessary.
Quasi-experimental design (QED)	A quasi-experimental design (QED) is a research design in which subjects are assigned to treatment and comparison groups through a process that is not random.
Randomized controlled trial (RCT)	A randomized controlled trial (RCT) is an experiment in which investigators randomly assign eligible participants into treatment and comparison groups.
Rating of effectiveness	The WWC rates the effects of an intervention in each domain based on the quality of the research design and the magnitude, statistical significance, and consistency in findings. The criteria for the ratings of effectiveness are given in the WWC Procedures and Standards Handbook (version 2.1).

Standard deviation

The standard deviation across all students in a group shows how dispersed the outcomes are. A measure with a small standard deviation would indicate that participants had more similar outcomes than a measure with a large standard deviation.

Statistical significance

Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. The WWC labels a finding statistically significant if the likelihood that the difference is due to chance is less than 5% ($p < 0.05$).

**Substantively
important**

A substantively important finding is one that has an effect size of 0.25 or greater, regardless of statistical significance.

Please see the [WWC Procedures and Standards Handbook \(version 2.0\)](#) for additional details.

Endnotes

¹ The descriptive information for this program was obtained from a publicly available source: the program's website (<http://ici.umn.edu/checkandconnect/default.html>, downloaded March 2010). The WWC requests developers to review the program description sections for accuracy from their perspective. The program description was provided to the developer in March 2010. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review. The literature search reflects documents publicly available by August 2011.

² The studies in this report were reviewed using WWC Evidence Standards, Version 2.0, as described in protocol Version 2.0. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

Recommended Citation

U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse (2011, October).
Intervention report: Check & Connect. Retrieved from <http://whatworks.ed.gov>.